

The Benefits of G8 and VES-13 Geriatric Screening Tools for Elderly Patients with Advanced Lung Cancer

Chanyoot Bandidwattanawong and Gorawich Kerkarchachai

Background: Lung cancer is the disease of the elderly. More precise and easy-to-use geriatric assessment would be beneficial in as both prognostic role to predict survival outcome and predictive role in selection of more proper treatments and monitor toxicities. The G8 and VES-13 would be the more practical tools.

Objective: The primary outcomes were to explore the prevalence of frail elderly lung cancer patients and independent factors of 1-year overall survival (OS). The secondary endpoint was to determine whether G8 and VES-13 would be the predictors of treatment-related adverse events (AEs).

Methods: From January 2020 – February 2021, elderly patients as defined as more than 65 years old, with advanced lung cancer (both NSCLC and SCLC) were included and classified into fit and frail patients based on either impaired G8 or VES-13 score. Baseline characteristics including sex, smoking status, ECOG PS, histology, Charlson Comorbidity Index, sites of metastasis and first-line cancer treatment were collected.

Results: There were 73 elderly patients (median age was 74 years (IQR, 69.5-78.0)) with nearly equal number between both sexes (men vs women, 37 (50.7%) vs 36 (49.3%)) were recruited. Most of the patients (70, 95.9%) had advanced NSCLC. The prevalence of frailty in newly diagnosed elderly lung cancer patients as defined by impaired G8 was 80.8% and as defined by impaired VES-13 was 72.6%. Platinum-based chemotherapy with or without immunotherapy was the most common first-line systemic therapy (60%) followed by oral molecular targeted therapy (mainly, an EGFR TKI) (34%), the rest were treated with best supportive care (BSC) alone. After correction for possible confounders, male sex (HR 3.66; 95% CI 1.16-11.55; P 0.027), frail patients (HR 11.91; 95% CI 1.01-140.28; P 0.049), poor ECOG PS (HR 6.42; 95% CI 2.2-18.75; P 0.001), and being treated with BSC alone (HR 16.51; 95% CI 3.24-84.08; P 0.01) were associated with adverse 1-year OS. The frail patients seemed to suffer from treatment-related AEs, especially anemia.

Conclusions: Both G8 and VES-13 are the useful screening tools for elderly lung cancer patients. They predict the survival outcome and would be predict the potential treatment-related AEs.
